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Industrial Horizons

MONTANA FRONTIER OF INDUSTRIAL DEVELOPMENT

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News Publication

Natural Gas Plant Uses By-Product

The following article is reprinted from the July, 1958, issue of "The Montanion," published by Montana Dakota Utilities Co. The article was written by Thomas A. Gwynn, MDU geologist.

The Texas Natural Gasoline Corp. plant at the south end of the Pine Unit oil field in Fallon County, Montana, was completed and went on stream in December, 1956.

This installation has made it possible to conserve a valuable by-product of the oil production in the Pine Unit, Cabin Creek Unit, and the Willis Creek Field. Gas previously flared is now processed. All liquid hydrocarbons are extracted and the resulting dry pipeline gas is sold to MDU. The liquid hydrocarbons extracted in the form of propane, butane, and natural gasoline are marketed primarily in the local area.

Gathering System

The gathering system for the gas associated with deep oil production in the three fields is relatively simple because of the elongated shape of the structure. Only one trunk line is needed to gather the gas production from all three areas. The gathering system was installed at a depth of six feet to prevent freezing, and the line was carefully constructed with drips located at the low points on the line.

A fully automatic booster compressor station takes gas from the Cabin Creek area and delivers it through an eight-mile delivery line to the plant.

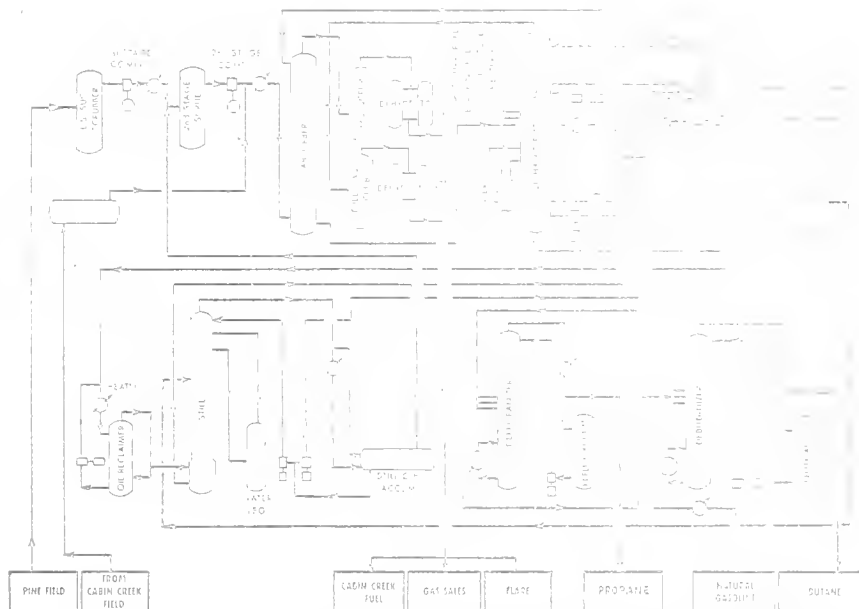
Plant Operations

Extreme weather conditions encountered in this area have presented numerous problems both in starting up the plant and in maintaining operations. It was necessary to thoroughly winterize the plant.

The entire process section of the gasoline plant, including all vessels except the absorber, is housed in one building. The other buildings include the compressor building, suction scrubber house, cooling tower, pump house, boiler house, loading pump house and the fire pump, and emergency generator house. It has been necessary to install extensive gas dehydration facilities to prevent freeze up of oil gas lines.

Process Cycles

The process is a conventional oil absorption-rich oil de-ethanizer cycle with totally condensed still overhead and cascade fractionation. Steam is the prime source of heat supplemented with a direct-fired still pre-heater. The steam balance is so made that exhaust steam from the process pumps is used for oil



Pictured above is a simplified flow chart of the Texas Natural Gasoline Corp. plant north of Baker. The plant utilizes by-product gases formerly flared. Final products are propane, butane and natural gas. The plant is the only such installation in Montana.

Pictured below is a view of the Texas Natural Gasoline Corp. plant. Highly automated, the installation requires only a few men.

The plant is a product of the Texas Natural Gasoline Corp., which is a subsidiary of the Texas Natural Gasoline Corp.

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Report Shows Potential of Forest Industries . . .

The most comprehensive survey of Montana's potential in the forest products industry ever written has just been published by the U. S. Forest Service and Montana's Congressional Delegation.

Entitled "Full Use and Development of Montana's Timber Resources," the study was prepared by the Chief of Regional Forester Charles L. Taylor of the Forest Service at Missoula. The study was prepared in response to an act of Congress last summer, from Sen. James Murray, Sen. Mike Mansfield, Rep. Ed. Mitchell and Rep. Lewis Anderson. It is available in printed form from the U. S. Congress, Wash., D. C., or from the Washington

Major Part of Economy

Spurred to take the major steps toward new methods of land and timber uses, Montana's forests are considered a highly important factor in our expanding economy. According to estimates in the report, the forest products industry now is providing around 8,000 full-time jobs, representing \$40 million in annual payroll. These jobs are in primary production of timber products—sawmills, pole production, Christmas trees. Another 15,000 jobs, some \$8 million a year in wages, are derived from secondary processing of timber products, which includes plywood and pulp production as well as other products. In addition, about 1,100 Federal, State and private foresters and their employees, with wages amounting to nearly \$7 million, were employed to manage the timber resources of Montana.

Thus, the Forest Service estimates that Montana's timber resources contributed about 10,000 man-years of employment and \$56 million in wages to our economy in 1957. This does not include the extra personnel employed on a seasonal basis.

Four Times Current Employment

However, the same forests could sustain three times the number of full-time jobs and triple the payroll in primary production. Secondary production could increase more than eight times—to 14,000 full-time jobs and an \$80 million annual payroll at present wage rates. In other words, full use and development of Montana's timber resources might contribute at least 42,000 man-years and around \$230 million a year in wages to the economy of Montana.

The Forest Service report tells how this full use of our timber resources can be accomplished. Among other factors, the following are emphasized:

- 1. Full use of the resources is contingent upon a variety of outlets for timber.
- 2. Integration of the lumber industry is necessary—i. e., every process from primary sawmills, through pulp and paper plants, to hardboard and chemical plants.
- 3. Montana's vast reservoirs of pulpwood are as yet virtually untapped.

- 4. Fiberboard plants will probably locate in areas of high salvage volume—areas of existing sawmill concentration.

No. 1 in Xmas Trees

- 5. Christmas tree production from Montana leads the nation—and will continue to do so.

- 6. From a forestry standpoint, pulp-mills in conjunction with other wood-using plants, are the solution to many vexing problems.

- 7. A key to solving the problem of blocks of timber separated by distance and plains, is probably the establishment of an integrated series of plants, including veneer, poles, pulp and fiberboard, at a site centrally located.

- 8. The establishment of pulp-mills on the upper Missouri and upper Yellowstone Rivers is considered possible.

Lumber Production Doubled

- 9. Montana lumber production has more than doubled since World War II.

- 10. Considerable attention has been given to the possibility of chemical use of Montana timber—i. e., arabogalactin from larch, and wood molasses from wood waste for livestock-feed supplements.

- 11. Better logging equipment is needed.

- 12. Overstocking and understocking of timber lands makes them unproductive.

- 13. Montana's forest roads system is inadequate—unless roads are built at a rate that keeps pace with salvage, valu-

Production of Forest Products, Sustainable Annual Production, and Percentage of Utilization, Montana, 1957

Type of Product	Western Montana			Eastern Slope Area			Total Montana		
	1957 Production	Annual Sustainable Production	Percentage of Utilization	1957 Production	Annual Sustainable Production	Percentage of Utilization	1957 Production	Annual Sustainable Production	Percentage of Utilization
Lumber and dimension	412,000	750,000	108.2	130,000	315,000	41.4	542,000	1,065,000	50.4
Veneer	3,000	30,000	10.0	0	33,000	0.0	3,000	123,000	2.3
Large Poles—30' and over	97,000	250,000	38.8	20,000	200,000	10.0	117,000	450,000	26.0
Small Poles—under 30'	93,000	500,000	18.6	91,000	400,000	22.8	184,000	900,000	20.4
Pulpwood	4,000	1,234,000	0.32	23,000	981,000	2.3	27,000	2,195,000	1.2
Fiberboard	0	200,000	0	0	160,000	0	0	360,000	0
Fence Posts	270,000	3,600,000	7.5	163,000	3,300,000	4.9	433,000	6,900,000	6.2
Chemical Wood	0	33,000	0	0	113,000	0	0	206,000	0
Fuelwood	94,000	100,000	94.0	12,000	50,000	24.0	106,000	150,000	70.6
Christmas Trees	1,520,000	5,000,000	30.4	63,500	1,500,000	4.2	1,583,500	6,500,000	24.3

Source: Adapted from "Full Use and Development of Montana's Timber Resources," Sen. Document No. 20, 85th Cong., 1st Sess., Washington: Government Printing Office, 1959.

Estimated Production of Forest Products, as Compared with Sustainable Annual Production in Montana, 1957

Type of Product	ESTIMATED 1957 PRODUCTION					ESTIMATED SUSTAINABLE ANNUAL PRODUCTION				
	Western Montana	South-western Montana	North-eastern Montana	South-eastern Montana	Total All Montana	Western Montana	South-western Montana	North-eastern Montana	South-eastern Montana	Total All Montana
Lumber and dimension	412,000	0	20,000	41,000	473,000	412,000	0	0	0	412,000
Veneer	3,000	0	0	0	3,000	3,000	0	0	0	3,000
Large Poles—30' and over	97,000	0	0	0	97,000	97,000	0	0	0	97,000
Small Poles—under 30'	93,000	0	0	0	93,000	93,000	0	0	0	93,000
Pulpwood	4,000	0	0	0	4,000	4,000	0	0	0	4,000
Fiberboard	0	0	0	0	0	0	0	0	0	0
Fence Posts	270,000	0	0	0	270,000	270,000	0	0	0	270,000
Chemical Wood	0	0	0	0	0	0	0	0	0	0
Fuelwood	94,000	0	0	0	94,000	94,000	0	0	0	94,000
Christmas Trees	1,520,000	0	0	0	1,520,000	1,520,000	0	0	0	1,520,000

able timber resources will be lost forever to full economic use. A 1957 report by the Bureau of Public Roads shows that at the current rate of construction, about 23 years will be required to accomplish the more urgently needed portion of the state's forest highway program. This does not take into consideration secondary roads.

Research Needed

• 14. More research is needed on utilization of Montana timber—new products, specialized machinery, a pilot plant to develop methods of producing stock-feed molasses at competitive costs, a bark-utilization pilot plant, and improvement of logging methods.

This comprehensive report should be ready by all Montanans concerned with the future economic growth of the state.

NEW AGRICULTURAL MACHINE

The Meyer Ditcher Co. of Fairfield, has expanded its operations to include the new Meyer Land Leveler, according to company officials. The first shipment of the new product left Fairfield in December via company truck for delivery to dealers in Texas and New Mexico.

The original Meyer ditcher was designed and patented by A. L. Meyer, Sr., and has been produced in Fairfield since 1941, along with the Meyer Ditch Filler. More recently, the Land Leveler and Meyer Bale Sweep, which went into production in 1956, were developed. All implements are manufactured in Fairfield and supplied to dealers in Canada and Western States—those areas in which irrigation is most prevalent.

Alvin Meyer, Jr., and Roy Meyer are partners in the business.

BRIEFS . . .

Over 1,800 communities in the United States have incorporated industrial development foundations to buy land and construct buildings for new industries, according to a recent survey of the Office of Area Development, a branch of the U. S. Department of Commerce. In 1959, it is estimated that over \$100 million will be spent by states, communities and private corporations such as utilities for industrial promotion.

The following letter was received in the State Planning Board last month: "It is my desire to find a large source and supply of catnip, or a lot of small sources. Catnip grows wild in many states and could be harvested, or it would be a very profitable project for anyone wishing to grow, harvest and dry. I would appreciate it very much if you would request anyone wishing to grow catnip to write immediately. Yours very truly, David D. Dagmar, President, Kaliko Kitty Catnip, 130 West 49, New York City 19."

INDUSTRIAL HORIZONS

DEVELOPMENT CREDIT CORPORATION BILL BEFORE LEGISLATURE

Montana's industrial development efforts may be furthered if a bill now in the 36th Legislative Assembly becomes law.

House Bill 200, introduced by Tonner (D-Flathead), Haines (R-Missoula), Barnard (D-Valley), Broeder (R-Flathead), Ceroyski (D-Fergus), Felt (R-Yellowstone), Gerard (R-Madison) and Barrett (D-Liberty) authorizes the incorporation of Development Credit Corporations similar to those operating in several other states where aggressive efforts are being made to expand the industrial base.

Banks Can Pool Risk

The purpose of the legislation is to permit private groups, such as banks and insurance companies, to pool capital resources and spread risks in relatively small amounts to provide long-term risk capital to promising new industries that find themselves unable to meet the loan requirement of commercial banks and other financial institutions. The loans would also be made to existing industries that are expanding.

Since the first state-wide corporation was established in Maine in 1949, twelve other states and the Territory of Hawaii have formed similar organizations. At least fifteen other states, including Montana, are now considering such corporations.

The proposal under consideration as HB 200 in Montana was drafted by a committee of bankers and finance experts working with the State Planning Board. It is patterned after the Business Development Corporation of North Carolina, one of the newest of these corporations. However, it is also one of the most successful—at the end of its first 20 months of operation, the North Carolina corporation had approved 51 loans totaling \$4,019,465 to industries with growth potential. This included loans with \$209,980 in participation by banks. Approximately 61 per cent of the North Carolina loans were made to assist in the construction of new plants or in the expansion of existing plants; 25 per cent for the acquisition of machinery and equipment; 11 per cent for working capital; and three per cent for the payment of existing indebtedness.

Emphasis On Employment

Of most significance, though, is the fact that the loans resulted in direct employment of 5,011 persons in North Carolina manufacturing industries—1,678 people in existing industries, and 3,333 in new jobs. Thus the emphasis in these corporations is on loans to industries which employ people in basic employment—to those industries with growth possibilities.

Though a private corporation which involves no obligation on the part of the State, nor any participation by public funds, the legislation is necessary to permit banks and other financial institutions to become institutional members with a voice in the management of the corporation. The bill thus encourages private groups to form credit corporations "for

the purpose of promoting, developing and advancing the prosperity and welfare of the state." Authority is also given to such corporations to borrow from federal agencies in making industrial expansion loans, such as is possible under the Small Business Act of 1958. They also participate in activities of community industrial development foundations.

SPB Recommendation

The preparation of the legislation resulted from a recommendation of the State Planning Board's Advisory Council to the Board at their October 1, 1958, combined meeting (see INDUSTRIAL HORIZONS, November, 1958). A committee of the Montana Bankers Association has worked with the State Planning Board in studying the legislation's desirability. This committee consisted of A. T. Hibbard, Union Bank and Trust Co., Helena; Fred Heinecke, First National Bank and Trust Co., Helena; and Carl J. Hokanson, Security Bank and Trust Co., Bozeman. The bill was drafted by a committee consisting of Hokanson; Perry Roys, Director of the State Planning Board; Forrest Hedger, Great Falls National Bank and a member of the Advisory Council of the State Planning Board; and Dr. Edward J. Chambers, Associate Professor of Finance at the School of Business, Montana State University, Missoula.

Source of Credit Needed

In recommending that the legislation be drafted, the State Planning Board and Advisory Council agreed that a source of long-term credit for industrial expansion loans (loans that are supplemental to, but not competitive with those of existing loan institutions) is necessary. As the Mountain West continues to grow at a rapid rate, Montana must be fully responsive to the industrial opportunities which are coming our way.

If HB200 passes the legislature and becomes law, it will be possible for Montana to establish this type of financial organization to provide needed capital for expanding industries. The organization has been eminently successful in this purpose in other states.

BRIEFS . . .

Two more Montana cities soon will be continuing their city planning programs with the aid of federal funds. Approval of Montana's third and fourth Urban Planning Assistance grants by Housing and Home Finance were announced by Montana's Congressional delegation—on January 31 for the \$11,856 grant to the Great Falls City-County Planning Board, and on February 13 for the \$6,000 grant to the Butte City-County Planning Board. Both communities will match the federal funds, and will use the total budgets to complete their master plans begun last year. The application of Billings for a grant of \$5,561 is still pending in Washington. All three cities were allowed to apply for these grants by passage of the 1957 Urban Planning Legislation.

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Industrial Development Efforts In Other States

Recent industrial development activities in other states include:

ARKANSAS—The governor of the Arkansas state legislature has called for a study of the state's industrial development potential. The study is to be approved by the legislature. No other legislative action on industrial development has been taken. The local effects of the study are not yet known.

New Department

CALIFORNIA—Governor Brown announced he would send to the California legislature a bill to create a State Economic Development Agency. The governor said a commissioner would be appointed to seek both large and small enterprises for the state. To be paid \$16,500 annually, he would suggest good industrial locations, provide detailed information about the business climate of California communities, study trends in industry, keep a census of business, and "keep a special eye on the needs of small business."

Combined Agency

NEW MEXICO—Governor Ruffalo announced that a major project of his administration would be to combine the State Tourist Bureau and the New Mexico Magazine with the State Economic Development Commission and combine agency to be known as the State Department of Development.

State Credit for Industrial Buildings

RHODE ISLAND—Members have been named to the Rhode Island Industrial Building Authority, which was authorized by the legislature in November to issue up to \$20 million in bonds and use the proceeds to make loans up to 90 per cent of the value of industrial plant building projects. The authority can make agreements with mortgagees and mortgagees on the purposes of planning, designing, financing and financial industrial projects. It can operate, manage, and sell real and personal property and make contracts and other agreements, as well as take title to a project by foreclosure.

Deferred Taxes

WASHINGTON—Submitted to Washington state lawmakers were proposed constitutional amendments which would authorize the legislature to defer for ten years tax payments by new or expanding industries; permit cities to excuse taxes entirely for such industries; and allow cities to make outright gifts to such industries.

MEETING TO DISCUSS PLANNING PROBLEMS OF SMALL COMMUNITIES HELD IN GREAT FALLS

A meeting of interest to Montana City-County Planning Boards was held in Great Falls on January 31.

Several persons interested in helping Montana communities to do a better job of planning—three professional planners, residents in the state, five representatives of Montana State University, and a representative of the State Planning Board met to discuss ways of helping smaller communities get started on planning.

Larger Cities Can Aid Planning

At the meeting, it was pointed out that Montana's larger cities—such as Billings, Butte, Great Falls, Missoula, Helena, Bozeman—have sufficient funds either to hire a full-time resident planner, or to pay for a full-scale master plan by a visiting consultant. However, many of the state's smaller communities are not so fortunate. Many of them have formed official City-County Planning Boards, and have appropriated some funds for planning. These communities do not require a full-scale expensive master plan, and in most cases they have only \$500-\$1,000 available each year for planning, not enough to make it feasible to hire a planning consultant. In addition, distances between cities in Montana make it difficult to set up a cooperative planning program among several communities. It was to discuss ways of helping these communities do some planning with their limited funds that the Great Falls meeting was held. Several sources of help were suggested:

Consultants

1. The three professional consultants agreed it is part of a professional's duties to stimulate planning. Each of them would be glad to visit a community, for expenses, to help set up a planning program.

Institutes

2. The possibility of summer institutes to acquaint City-County Planning Board members with their duties and inform them of current trends in planning for smaller communities was discussed. These could be held on one of the state's college campuses. Another suggestion was regional seminars on planning in various parts of the state. These would be held in with local industrial development conferences.

Booklets

3. Those attending the meeting agreed to write a series of brief booklets on planning problems in Montana. These booklets will deal with such subjects as zoning for small communities; what goes into an economic base survey; population trends; how to conduct a market survey.

INCORPORATIONS UP 23%

Another indication of Montana's growth is shown by the fact that new incorporations in the state in 1958 increased by 22.9 per cent over those in 1957, according to figures from the office of Secretary of State Frank Murray.

A total of 669 new firms were incorporated in 1958, up from 516 in 1957 and 333 in 1951. Of the 669, 159 (23.7 per cent) were non-profit firms, and 276 (41.3 per cent) were new domestic profit corporations engaged in trades and services.

Two non-profit local industrial development foundations were incorporated in 1958—the Deer Lodge County Industrial Development Corporation of Anaconda, and Butte's Montana Resources, Inc.

New firms in basic industry included 91 farm and ranch incorporations, 39 new manufacturing firms, 35 new mining concerns and 70 trucking and construction firms.

Many Lumbering Firms

Of the new manufacturing corporations, the largest group is lumbering and sawmill firms in western Montana. However, several other interesting new operations were revealed in the listing. These include:

- Granite Fence Co., of Philipsburg—fences and timber products.
- Aluminum Manufacturing and Distributing Co., of Great Falls.
- Northwest Plating Co., of Billings—chrome plating.
- Western Figure Health Equipment Co., Missoula—automatic massage tables.
- Rapid Waxer Co., Inc., Whitefish—machine for waxing skis.
- Hobson Roller Mills, Inc., Hobson—roller mill and feed business.
- Future Tool Co., Kalispell—make and sell tools.
- Holligan Cans, Inc., Butte—tin can shredding plant for processing into copper precipitation material.

See, and information available to local Planning Boards in U. S. Census material.

Newsletter

4. Publication of a general periodical as a means of communication between planners in Montana was a medium for reporting information of interest to local Board members was discussed.

5. It was suggested that the annual meeting of the Association of Montana Planning Boards be expanded to include a day-long discussion of planning problems.

6. Developed the concept of a Great Falls City-County Planning Board. Montana communities are urged to contact the State Planning Board at Helena.

MONTANA STATE PLANNING BOARD

Sam Mitchell Building

Helena, Montana

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